

Animal Welfare Bien-être des animaux

One Health, One Welfare: Education in practice Veterinary students' experiences with Community Veterinary Outreach

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One Health, One Welfare

While One Health initiatives have traditionally focused on threats to human and animal health, such as zoonoses and a secure food supply, they have not typically promoted an understanding of the many beneficial physical and psychosocial impacts of human-animal relationships and how these can be leveraged to improve both human and animal health around the world. Additionally, current One Health initiatives are undertaken at international, federal, and provincial levels yet often fail to have an impact at a community and primary care level.

The Centers for Disease Control and Prevention's definition of health is "a state of complete physical, mental, and social well-being." This definition has included not only physiological, but also emotional and social (behavioral and natural) states as are often described in the definition of good welfare (1). Indeed, it is well-recognized that where there are poor states of human welfare there commonly exist poor states of animal welfare, such as what is found in countries or regions with emerging economies. Similarly, animals often act as indicators of human health and welfare, as can be seen in the link between animal abuse and family violence. Considering health and welfare together — because of the interconnections of human-animal-environmental factors — helps to describe context, deepen our understanding of factors involved, and creates a holistic and solutions-oriented approach to health and welfare issues.

The North American Veterinary Medical Education Consortium (NAVMEC) has identified knowledge of One Health concepts and principles as a core competency for veterinarians who will graduate in the 21st century (2). Despite widespread exposure and support of One Health concepts, a recent survey of veterinary students at Colorado State University demonstrated that few opportunities exist within veterinary curricula for students to get involved and gain practical experience in this area (3). To fully realize One Health concepts and prin-

ciples and ensure their promotion by future health professionals, veterinary students require tangible, specific applications (4).

Among an estimated 12% to 19% of homeless and vulnerably housed people in Canada who own pets (S. Hwang, personal communication, January 15, 2010; B. O'Grady, personal communication, January 3, 2012), research has demonstrated not only a universally high level of pet attachment, but also that homeless pet owners will often put the needs of their pets before their own (5). The result is that pets act as a motivator for positive behavior change in the caregiver. For example, among street-involved youth, pet ownership has been described as a motivator to decrease use of alcohol and drugs, avoid arrest, and develop responsibility, and a positive sense of self, structure, and routine (6).

Community Veterinary Outreach

Community Veterinary Outreach (www.vetoutreach.org) is a registered charity that provides *pro bono* preventive veterinary care for marginalized pet owners (those who are homeless and vulnerably housed in 4 communities in Ontario). To access these free services, clients must be referred by social workers, outreach workers, or human healthcare providers from community agencies including but not limited to shelters, social services, municipal public and community health centers, mental health associations, and housing support agencies. Community clinics are held every few months in accessible social service locations. Typically, 25 to 30 clients with a total of 30 to 40 pets are referred to each clinic. Clinics are staffed with 3 to 4 veterinary teams, which include a veterinarian, 1 to 2 veterinary students, and an animal health technician. Animals are given a complete physical examination, preventive vaccines, treated for internal and external parasites, and implanted with permanent identification (microchip). Pet owners are provided with bags of an appropriate life stage pet food and free spay/neuter surgeries are offered at a future date for pets seen at wellness clinics. In addition, these clinics provide opportunities to educate and offer advice to owners on at-home care, grooming, nutrition, dental care, behavior, and the benefits of pet sterilization. Through offering these free outreach clinics, it has been shown that marginalized pet owners will ensure that their pets needs are met ahead of their own. By leveraging the strong human-animal attachment and desire for veterinary care for their pets, Community Veterinary Outreach has been successful in engaging an under-served human population in health and social services within the veterinary care environment through their community network.

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Veterinary students in outreach

In the past 3 years, Community Veterinary Outreach has welcomed over 130 veterinary and undergraduate students from the Ontario Veterinary College, University of Guelph, (OVC; Guelph, Ontario), the Western College of Veterinary Medicine (WCVN; Saskatoon, Saskatchewan), and St. George's University College of Veterinary Medicine (True Blue, Grenada).

To investigate student motivation for volunteerism, 132 past Community Veterinary Outreach student volunteers were contacted for their perceptions about pet ownership among marginalized populations and their experiences through participating in Community Veterinary Outreach clinics. Volunteers were asked to respond to the following open-ended questions: i) What made you want to volunteer with Community Veterinary Outreach? ii) Did you have pre-existing biases prior to your first clinic? If so, have they changed? and iii) What has your experience with Community Veterinary Outreach been? What have you learned from this experience?

A total of 20 responses were received, representing a 15% response rate. Respondents consisted of: 1 first-year OVC student, 3 second-year OVC students, 8 third-year OVC students, 4 fourth-year OVC students, 1 first-year WCVN student, 1 fourth-year WCVN student, and 2 undergraduate students from the University of Guelph. Examples of student feedback on topics related to these questions are provided below.

Skills and community-based volunteering

For many, the initial motivation to volunteer was an opportunity to get out of the classroom and supplement the didactic learning with additional hands-on, clinical experience. Specifically, students volunteered to further refine technical and communication skills (15 students). In this volunteer role students were closely mentored and supervised by licensed veterinarians. Students described gaining applied experience and refining clinical competencies such as taking a thorough history, performing a physical examination, completing a medical record, administering vaccines, and implanting microchips (6 students).

"My experiences with CVO clinics have all been positive. They have ranged from supportive experiences where I get to interact more with the clients and learn about their experiences, to hands-on experiences where I get to practice my physical exam skills and learn how to administer vaccines or complete a medical record. I always take something away from each clinic because everyone is so devoted to providing learning opportunities to the students, and I really appreciate this." ~3rd-year OVC student

Most respondents described wanting to get involved within the community (16 students) as well as gain experience in interacting with clients from different lifestyles (4 students).

"I have always found school a little isolating, and it can be hard to stay in touch with my community. CVO was the perfect opportunity for me to volunteer and stay connected. I was able to donate my time to a cause I truly believe in, witness the effect of our efforts on individuals and their pets, and learn more about veterinary medicine in the process. I can't think of a better combination." ~1st-year OVC student

Human interactions

A number of pre-existing biases were identified among students prior to volunteering, including the assumption that the clinic patrons would be indifferent and difficult to work and communicate with (7 students). While students expressed concern regarding their abilities to relate and communicate with the clinic patrons, common ground was quickly established through the student's and client's mutual interest and passion for animals.

"Before participating in the clinic, I was concerned about my ability to talk with the clients. Their experiences in life have been so different from my own, and I was unsure how well I would be able to relate to them. Initially I was very cautious about what I said to the clients, in fear of offending or upsetting them, but it wasn't long before conversation came naturally. The outreach experience made me realize how easy it is to talk with people, regardless of their lifestyle, as long as you're polite and willing to listen." ~1st-year OVC student

Through participating in veterinary outreach clinics, students described interacting with a unique demographic of pet owners to whom they may otherwise have never been exposed and learning by experience the power of the human-animal bond (6 students). Students described hearing first-hand how clients identify their animals as their only source of love and companionship and sometimes, the only reason they are alive today (4 students). As described by 8 students, participating at a Community Veterinary Outreach clinic deconstructed a stereotype that the homeless and the vulnerably housed are inherently neglectful, unaware, and apathetic. In fact, 3 students described the clinics' patrons as more attentive, inquisitive, and grateful relative to previously encountered clients in small animal private practice.

As 2 third-year OVC students described:

"I was really surprised to find clients were interested in a lot more than just getting free health care — they wanted to know about toys and training and really, really cared about the quality of life their pets were experiencing."

"The clients that I came across at Community Veterinary Outreach were so loving and cared so much for their animals. A lot of them rescued their pets from a bad situation and are giving their animal food and care before they care for themselves. Their animals also give the clients so much back. They are companions, friends and someone who will always listen to them and not abandon them."

Animal welfare

Five students assumed that the animals would be poorly treated and conditioned.

"To be honest, I did have biases. I was nervous that we would see patients who were poorly cared for and clients who were apathetic. But I could not have been more mistaken." ~1st-year OVC student

"I expected that people having difficulty feeding themselves would also lead to reduced care for their pet. This was incorrect and I was impressed about how well they were looked after." ~3rd-year WCVN student

"I think I had a bias that these people would not care for their animals as well as those people that were a bit more well off. That

changed immediately once the first client walked through the door. I'd never seen people love their pet so much, and care so much for them. It was incredible to see and incredibly rewarding to be able to help them and their animals." ~3rd-year OVC student

Client environment

Before volunteering with Community Veterinary Outreach, 4 students expressed adhering to the belief that if one cannot afford an animal, one should not own an animal. However following participation and learning more about the circumstances that led to homelessness, these biases changed.

"I was particularly touched by one client that came to the clinic that day. She was a middle-aged lady with two Jack Russell Terriers that had just gotten herself out of an abusive relationship and was trying to get back on her feet again. She was living out of her car and explained to me how much her dogs meant to her. They were her family. She relayed that she wasn't about to go seek help in a Women's Shelter because that meant that she wouldn't be able to take her dogs with her, and that there was absolutely no way she was going to leave them with her abusive ex-partner. This woman was in the midst of finding a job and an apartment so that her 'kids' (her dogs) had a safe place to stay." ~2nd-year OVC student

One Health

Two fourth-year students identified opportunities to engage in One Health discussions with their clients and further developed their understanding of an interconnected model of health.

"I went into this experience expecting to fine-tune my clinical skills, but will leave with plenty more than that. I have witnessed first-hand the power of the human-animal bond. I have met individuals who have put the needs of their pets first, who won't eat so their furry friends can and have even stopped smoking in an effort to reduce their cat's respiratory problems."

"As a 4th-year student veterinarian, this opportunity provided me with tools to further my personal and professional growth. Not only was I able to hone my physical exam and communication skills under the gentle guidance of an overseeing veterinarian, but I also attempted to make connections between a client's own health and the health of their beloved pet."

Empathy and stewardship

Students identified their experiences to be exercises in empathy and compassion, reminding them of why they chose the profession in the first place (8 students).

"The clinics are always positive and rewarding and I am so happy to have been able to participate. I have improved my communication and technical skills through the experiences with CVO and have really cemented my passion for community outreach — it will be an everlasting part of my future career as a veterinarian." ~3rd-year OVC student

"I've learned to be patient, compassionate and to treat every individual without any preconceptions — I don't know their situations/backgrounds, so I shouldn't be judging. What we do have in common is that we care about their pet(s), and that's why we're here — we should work as a team to help their pet(s)." ~2nd-year OVC student

Discussion

Important goals in teaching are to challenge veterinary student perceptions and facilitate opportunities for not only applying and practicing core learning, but also learning how veterinarians are connected with their communities and with society as a whole. By understanding these concepts, opportunities are provided for long-term personal growth. For many veterinary students, identifying their role in the community as an individual and a professional can be challenging. After all, most of their adult lives have been spent in a very focused pursuit of admission into veterinary college. Moving away from this singular goal and exploring their sense of self, their perception of service to others, and recognizing their inner potential to care and empathize with marginalized individuals is desirable both personally and professionally, with significant positive impact for society as a whole.

One first-year veterinary student described her outreach experience in this way:

"Eye-opening. I have learned so much, but mostly about myself. I identified personal biases (and broke most of them). I realized how the well-being of both animals and owners are intertwined. And I learned that a little giving, even just your time, can go a long way."

In a One Health, One Welfare model, factors contributing to each sector — humans, animals, and environment — are studied. Within veterinary medicine and particularly within the veterinary curriculum there is understandably a focus on the animal sector relative to the human and environmental sectors. However, in clinical practice and in community health, equal knowledge of all sectors is required. While most students did not implicitly identify opportunities to engage in One Health practices, outreach experiences provided students with the unique opportunity to gain more knowledge, acceptance, and understanding of a marginalized human sector and "how the well-being of both animals and owners are intertwined" as described in the previous narrative. Students also learned about environmental factors that contribute to poverty and homelessness and the circumstances in which marginalized pet owners often find themselves, many of which are beyond their control. Experiencing the significant and reciprocal power of the human-animal bond among outreach clients and their pets was an overarching theme of student narratives. Through a 'One Health, One Welfare' lens, the increased empathy, compassion, and stewardship of early career veterinary professionals will undoubtedly lead to improved animal and human welfare, and thus improved community health.

Community Veterinary Outreach's One Health engagement initiatives include the integration and community-level collaboration of veterinary teams with social service workers and human healthcare providers. This team approach serves to cooperatively improve the health and welfare of humans and animals, demonstrating that veterinary care can act as a direct avenue to improve health and social service delivery for underserved populations. For example, smoking behavior was chosen as the first indicator of the ability of clinics to improve human healthcare delivery and amplify human health messaging in 3 pilot clinics held in

Toronto. Approximately 70% to 80% of the homeless people use tobacco (7) and it has been demonstrated that knowledge of the adverse effects of second-hand smoke on their animals is a strong motivator for pet owners to quit smoking or alter smoking behavior (8). In the first pilot study of this One Health community project, it was demonstrated that veterinarians could effectively amplify human health messages around smoking by educating their clients about the effects of second-hand smoke on animal companions, such as an increased risk of developing nasal cancer in dolichocephalic breeds, lung cancer in brachycephalic and mesocephalic breeds, and malignant lymphoma in cats (9–11). Further investigations on this particular aspect of the project are underway.

As One Health concepts and principles have historically been difficult to translate into the veterinary curriculum, effective practices and educational models should be shared within the veterinary medical education, and One Health education communities (3). Community Veterinary Outreach represents a specific, tangible expression of One Health principles and concepts applied at the community level. Through participation in the program, students have challenged and redefined preconceptions of those who are homeless, and their respective pet ownership. Students have self-identified a need to exercise more compassion and empathy towards people regardless of circumstance. An interdisciplinary practice network has been further developed by incorporating human health care and social services providers. Not only do students gain an appreciation for the power of the human-animal bond, but they also witness how it can be leveraged to motivate changes in behavior that benefit both human and animal welfare. By supporting and maintaining the human-animal bond, students also begin to appreciate that

their work extends beyond the health and welfare of animals, but also directly benefits the psychosocial and physical health of their clients.

“Community Outreach has allowed me to grow as a student veterinarian, a community member but most importantly, as a human being.” ~4th-year OVC student

References

1. Fraser D. Assessing animal welfare: Different philosophies, different scientific approaches. *Zoo Biol* 2009;28:507–518.
2. AAVMC (Association of Veterinary Medical Colleges). Roadmap for veterinary medical education in the 21st century: Responsive, collaborative, flexible. *J Vet Med Educ* 2011;38:319–416.
3. Wong D, Kogan LR. Veterinary student's attitudes on one health: Implications for curriculum development at veterinary colleges. *J Vet Med Educ* 2013;40:58–62.
4. Chaddock M. Academic veterinary medicine and one health educations: It is more than clinical applications. *J Vet Med Educ* 2012;39:241–246.
5. Lem M. Effects of pet ownership among street-involved youth (Master's thesis). University of Guelph, Guelph, ON (2012).
6. Lem M, Coe JB, Haley DB. Effects of companion animal ownership among Canadian street-involved youth: A qualitative analysis. *J Sociol Soc Welfare* 2013;Vol XL:No. 4.
7. National Coalition for the Homeless. (2009) Tobacco Use and the Homeless. [page on the Internet]. Available from: <http://www.nationalhomeless.org/factsheets/tobacco.html> Last accessed October 15, 2014.
8. Milberger SM, Davis RM, Holm AL. Pet owners' attitudes and behaviours related to smoking and second-hand smoke: A pilot study. *Tobacco Control* 2009;18:156–158.
9. Bertone ER, Snyder LA, Moore AS. Environmental tobacco smoke and risk of malignant lymphoma in pet cats. *Am J Epidemiol* 2002;156:268–273.
10. Reif JS, Dunn K, Ogilvie GK, Harris CK. Passive smoking and canine lung cancer risk. *Am J Epidemiol* 1992;135:234–239.
11. Reif J, Bruns C, Lower KS. Cancer of the nasal cavity and paranasal sinuses and exposure to environmental tobacco smoke in pet dogs. *Am J Epidemiol* 1998;147:488–492.